

CALIFORNIA'S HEALTH

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Air Pollution Control: A Public Health Responsibility*

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I. History of Air Pollution as a Health Problem

Public health lost interest in the atmosphere as a vehicle of disease when the discovery of bacteria exploded the theories of miasmata and effluvia. It has taken an industrial revolution; several major disasters to human beings, cattle, vegetation (and nylon hosiery); the Los Angeles smog; and the stings of a mounting public opinion to cause the health officer to realize that the approximately twenty-five thousand liters of air we inhale each day may be a source of disease and discomfort. Today, air pollution is no longer synonymous with nuisance. Nor is it an abstruse, technical subject comprehensible only by engineers and chemists. It occupies a respected place on the agenda of public health and medical meetings. In the course of this discussion I will trace the history of the subject, its interesting ramifications into related fields, what is known to date of its medical-clinical aspects; and the public health responsibilities and functions with regard to it.

Atmospheric contaminants embrace a wide variety of materials resulting from industrial operations, motor vehicles, and domestic activities. To complete the picture, one must also consider the pollens and infectious agents. Industrial sources of air pollution constitute the bulk of the problem and are by far the more complex and more important phase so far as the public health is concerned. This is especially true in Los Angeles, where no coal is used for heating. It is to this phase that major consideration is given in this paper.

AIR POLLUTION AND COAL

The history of air pollution might well begin with the story of coal. Coal was first used in England in the early Bronze Age, about 1500 B.C.¹ The early product became known as "sea coal" because it was first discovered on the beaches. As wood became more scarce people turned increasingly but reluctantly to the use of coal. One historian records that, "By the bulk of the community, coal fuel was regarded with much aversion on account of the disagreeable smoke to which it gave rise. Coal smoke was considered to be very detrimental to health. It began to be considered a source of annoyance while the coal trade was still in its infancy."² The increase of smoke in London annoyed visiting nobles and others coming into the city to attend Parliament so much so that in 1306 a royal proclamation was issued prohibiting persons from using coal in their furnaces, and in the following year a special commission was appointed "to inquire of all who burnt sea-coal in the city or parts adjoining to punish them for the first offense with great fines and ransomes, and upon the second offense to demolish their furnaces." Queen Elizabeth was "greatly grieved and annoyed by the smoke of sea-coals" and prohibited the burning of coal in London while Parliament was in session.¹² Nevertheless, the coal trade grew with hardly a check. It was not until the seventeenth century that the coal fire was adopted with reluctance by polite society. Howes, writing in 1631, tells us that, "Within 30 years last the nice dames of London would not come into any house or room where sea-coals were burned nor willingly eat of the meat that was either sod or roast with the coal fire."¹

* Presented at the Annual Meeting, Western Branch, American Public Health Association, May, 1949, Los Angeles. Part one of an article to appear in two sections.

The struggle with smoke continued ineffectually as the inexorable logic of economics dictated the increasing use of coal. In 1661, John Evelyn published his famous indictment of London's smoke entitled *Fumifugium: or the Smoke of London Dissipated*. In it he eloquently pleads, "That this Glorious and Antient City, which from wood might be rendred Brick (like another Rome) from Brick made Stone and Marble; which commands the Proud Ocean to the Indies, and reaches the farthest Antipodes; should so wrap her stately head in Clouds of Smoake and Sulphur, so full of Stink and Darknesse, I deplore with just indignation. . . . Her inhabitants breathe nothing but an impure and thick Mist, accompanied by a fuliginous and filthy vapour, which renders them obnoxious to a thousand inconveniences, corrupting the lungs, and disordering the entire habit of their Bodies, so that Catarrhs, Phthisicks, Coughs and Consumptions, rage more in this one City, than in the whole Earth besides." Evelyn called attention to the damage to vegetation done by the smoke, and also the fact that almost one-half of the inhabitants who died in London died of "Phthisical and Pulmonic distempers; that the inhabitants are never free from coughs and the importunate Rheumatisms, spitting of Impostumated and Corrupt matter; for the remedy thereof there is none so infallible, as that in time the Patient change his Air and remove into the country."¹

THE STEAM ENGINE

Up to this time the smoke problem had been, compared to our day, relatively insignificant; but with the invention of the steam engine a revolutionary development occurred in the means of translating the energy of coal into power. With this, and the iron and steel that was made available by coal, our present industrial civilization, built on coal and iron, came into being. Louis Mumford³ points out that, "Just as the noisy clank of Watt's original engine was maintained, against his own desire to do away with it, as a pleasing mark of power and efficiency, so the smoky factory chimney, emblem of a crude, imperfect technique, became the boasted symbol of prosperity.

"There came an orgy of waste, an appalling degradation of environment in the blotting out of all amenity and beauty from the lives of millions. . . . 'Where there's muck there's money' became a proverbial saying starkly revealing not only a poverty of knowledge and understanding, but a miserable and cramped social philosophy."¹

While in England coal smoke and chemical plant wastes were the chief causes of trouble, similar developments were taking place in Germany where metallurgical smoke with sulphur dioxide as the chief offender

held the center of the stage. This accounts for the fact that early German investigators did the more important work on oxides of sulphur and smelter smoke in general, while the English took the lead in studies on products of the incomplete combustion of coal, especially soot and tarry products.⁴

And in this country, too, recognition was given to air sanitation. In 1850, Shattuck, in his famous Sanitary Survey of Massachusetts, recommended "That provision be made for obtaining observations of atmospheric phenomena. . . ." He stated, "It opens a vast field . . . which is as yet unexplored; but it promises results of great value and importance to science and to human life."⁵

By the turn of this century, much evidence had accumulated in England and Europe of the association of air contaminants and health. In 1873 and 1880, London experienced fatal smoke fogs in which a number of people and cattle were killed. In Glasgow, in 1909, during a period of five days of smoke fog, the average weekly deaths rose from 35 to 233. A Glasgow newspaper editor stated that he automatically allowed more space for the obituary notices whenever there was fog.¹

Apace of these developments was the growing knowledge of the occupational pneumoconioses. By 1880, much had already been learned of the dust diseases of the lungs. Then Koch discovered the tubercle bacillus. And, as one historian records, the study of the effects of dust stopped. All cases of lung disease were diagnosed as tuberculosis. A well-known Swiss scientist of the day ridiculed the concept of the pneumoconioses stating they belonged "rather in a cabinet of curiosities than in industrial hygiene."⁶

DECEMBER, 1930

The world was shocked in December, 1930, when 63 persons died within the space of 24 hours in a small industrial area near the town of Liege in the Meuse Valley of Belgium. The Journal of the American Medical Association for January 3, 1931,⁷ in an article entitled "The Fog Deaths in Belgium" described the event as follows:

"Weekend medical sensations sprung on American audiences as news from abroad are no novelty in the American press. The fear of the fog deaths is no doubt still fresh in the minds of many people. Seldom has a more dramatic announcement been made than the account of the spread of the fog in the Valley of the Meuse, the fleeing of the people, the deaths of the aged, and the terrible possibility of poison gas. It was a story to delight the heart of an editor. Leg men rushed here and there gathering interviews from noted climatologists, bacteriologists, health officials, smoke inspectors, chemists and toxicologists. In Chicago, the well known cloud of smoke was visualized as a possible menace. The majority of experts who were consulted were convinced that it was not possible for any poison gas or any products from any factory to effect people in such a manner as to bring about deaths of the nature of those reported. . . . The sixty-four deaths that occurred were of old people primarily. . . . Apparently the deaths were due to nothing else but a sudden severe spell of fog and cold."

The Belgium government appointed a special investigating commission headed by Professor Storm van Leeuwen. Their findings, reported in the Journal of the A. M. A. of April 18, 1931,⁸ effectively reversed the opinions of the the experts and its own comments four months earlier. The commission found that while a majority of the persons who died were elderly, and in many cases suffered from cardiac and pulmonary disorders, there were several hundred apparently healthy persons who were made seriously ill. Poisoning was indicated by the suprisingly short interval between the onset of the first symptoms of acute respiratory embarrassment and death. The autopsy findings were consistent with sulphur dioxide poisoning. The commission observed that an unusually heavy fog facilitated excessive concentration of fumes emitted by the factories in this area. The neighboring city of Liege, which was enveloped at the same time in a dense and extremely cold fog, escaped any mortality while the factory village of Engis suffered severely. In 1911, it was recalled, a similar but less severe catastrophe had occurred in the same area. The commission further observed that similar cold and heavy fogs do not produce such trouble in Holland and elsewhere, "but even in ordinary weather the fumes in the air in the Meuse Valley can be perceived by the nose while the landscape shows abundant signs of their destructive action."⁹ Haldane, writing at this time,¹⁰ reported that the "effects were due mainly, if not entirely, to the sulphur compounds in the products of combustion, owing to the irritant action of these substances on the air passages. Symptoms and signs of nasal inflammation, laryngitis, and bronchitis were evident, but not of pneumonia. The sulphuric acid is present in the air as minute liquid droplets of dilute sulphurous acid condensed on solid nuclei, while the sulphuric acid is present as gas. It was suggested that hydrofluoric acid might also have been present in very small quantities, but my own experiments with this substance during the war did not seem to indicate that, in spite of its striking action on glass, it is more dangerous as a constituent of air than other mineral acids."

Eighteen years later, on October 29 and 30, 1948, a catastrophe reminiscent of Belgium occurred in the little town of Donora, Pennsylvania, with a population of 14,000 persons. Nineteen persons died within a period of 36 hours and one expired shortly afterward. Not so well known is the fact that approximately 500 people were ill with complaints of dyspnea and coughing. Most of the fatal cases had either cardiac or pulmonary ailments and all were persons between the ages of 52 and 85 years. The cause of the tragedy was industrial air contamination which was able to build up to an excessive amount as a result of particular meteorologi-

cal conditions.¹¹ The exact nature of the chemicals and processes which resulted in the trouble is the subject of an investigation now being completed by the U. S. Public Health Service in collaboration with the Pennsylvania Department of Public Health.

(To be continued in the next issue)

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Examination Announcements

OCCUPATIONAL THERAPIST

Examinations for *Occupational Therapist, Grades 1 and 2* have been scheduled by the State Personnel Board for August 27, 1949. Applications must be filed by August 6.

California residence is not required for either examination. Further information and application forms are available from the State Personnel Board, 1015 L Street, Sacramento, as well as from local Department of Employment offices.

CONTRA COSTA ASSISTANT HEALTH OFFICER

A vacant assistant health officer position, which the county would like to fill immediately, exists in the Contra Costa County Health Department.

Physicians who hold a California license and who have a Master of Public Health degree are eligible. An immediate appointment will be made on a provisional basis with an examination leading to permanent status to follow shortly. Applicants should contact the Contra Costa County Civil Service Commission, P. O. Box 710, Martinez, California.

Current salary range for the position is \$492-590 per month.

Two Local Health Officers to Retire



Dr. Alex Lesem

Two of California's ablest health officers, Dr. Alex Lesem of the San Diego City and County Health Departments and Dr. William A. Powell, Contra Costa County Health Department, will retire from their positions this year.

DR. ALEX LESEM

Alex Lesem, M.D., is the "dean" of California local health officers. Health officer in San Diego since 1918, he will retire July 29 of this year after 31 years service.

In 1918 Dr. Lesem was appointed a part-time health officer of San Diego City and in 1924 was named health officer for the entire county, heading one of the first full-time health units in the State.

Under his direction the county health department grew from a staff of a half-dozen people to its present organization which includes over 200 professional workers—from the services of one physician, a sanitarian and four nurses to a local health department with a complete public health program.

The doctor himself thinks of the immunization program in the schools as one of the most meritorious of all department programs he has administered. This began in 1923 when a diphtheria epidemic was raging in many areas of the county. The county approached Dr. Lesem, who was then city health officer, for help and a large-scale immunization program was undertaken. After the

diphtheria epidemic had been halted, the county asked the doctor to be its first full-time health officer. His first step as director of health for the city and county was to secure immunization against diphtheria and small-pox for all children in the city and county public and parochial schools.

Even after 30 years of outstanding public health achievement, Dr. Lesem did not stop to rest on his laurels. During the past year he established a Bureau of Health Education in the department and extended tuberculosis control by a mobile chest X-ray unit so that a total of 15,672 films were taken from March to May in addition to the average of almost 300 a day at the Tuberculosis Clinic. In April, an industrial health survey was conducted in San Diego with the cooperation of state and federal agencies. The survey will form the foundation for an official industrial health program to be administered by the health department.

Dr. Lesem is a native of Quincy, Illinois. He is a graduate of the University of Southern California College of Physicians and Surgeons and served his internship at the San Diego County General Hospital.

DR. WILLIAM A. POWELL

Also retiring this year is Dr. William A. Powell, who will step down from his post as Contra Costa Health Officer in December.



Dr. William Powell (Oakland Tribune Photo)

The doctor will retire on his 70th birthday after 17 years in his present position.

He leaves a department which has expanded under his administration from a three-person staff to one of 23 professional workers.

Dr. Powell's medical career is distinguished by 30 years of service in the U. S. Army. As an army doctor he traveled far and wide. In 1908 he was assigned to the Philippine Islands and there was detached from military service to organize a public health unit in Tayabas Province near Manila, which was governed by Manuel Quezon, who later became the first president of the Philippine Republic.

Dr. Powell also has fond memories of frequent meetings with Theodore Roosevelt when the doctor was assigned to the Army Medical School in Washington, D. C.

Army service also included several California posts. During the famous San Francisco earthquake and fire, Dr. Powell commanded a military hospital unit that cared for victims of the disaster. He returned to the State in 1911 for duty in Yosemite National Park, then administered by the Army.

Of that experience he says: "We rode horseback—two detachments of cavalry, that is—from San Francisco to Yosemite. I guess I know every trail in the park and probably made quite a few myself."

Both natives of Georgia, Dr. and Mrs. Powell now reside in El Cerrito. The doctor has no definite plans for future activities, but, he told a reporter, "I'll tell you one thing . . . I'm going to get in a little fishing."

Local Health Officer Changes

Here are recent changes in California local health officerships:

Thomas D. Wyatt, M.D., replaces B. F. Saylor, M.D., as health officer of Shasta County.

Mr. Kenneth D. Fritch replaces Mr. George H. Welsh as health officer of Lakeport. (Lake County.)

The newly incorporated City of Capitola is now under the public health supervision of the Santa Cruz County Health Department.

The Cities of Piedmont and Emeryville have given final approval to a plan which will place them under the jurisdiction of the Alameda County Health Department as of July 1, 1949.

Add Mrs. Robson

Mrs. Barbara Reid Robson should be added to the list of members of the State Joint Committee on School Health's Subcommittee on Nutrition and School Lunch.

Mrs. Robson's name was inadvertently omitted from the committee roster which appeared in the June 15, 1949 issue of *California's Health*.

49 Health Departments Qualify for Assistance Funds

Forty-nine local health departments have qualified for state financial assistance for the fiscal year beginning July 1, 1949.

Fresno County appears on the list for the first time in the two-year history of the program. To be eligible for financial assistance, local health departments must meet standards developed by the Department of Public Health and the Conference of Local Health Officers. All of California's organized health units have qualified for funds. They are:

Counties		
Alameda	Merced	San Mateo
Colusa	Monterey	Santa Barbara
Contra Costa	Napa	Santa Clara
Del Norte	Orange	Santa Cruz
Fresno	Placer	Solano
Humboldt	Riverside	Sonoma
Imperial	Sacramento	Stanislaus
Kern	San Benito	Sutter
Kings	San Bernardino	Tulare
Los Angeles	San Diego	Ventura
Madera	San Francisco	Yolo
Marin	San Joaquin	Yuba
Mariposa	San Luis Obispo	
Cities		
Alameda	Oakland	San Bernardino
Berkeley	Pasadena	San Diego
Long Beach	Richmond	San Jose
Los Angeles	Sacramento	

Another health department which expects to become qualified during the fiscal year is that of Butte County. Funds have been appropriated for the first full-time health department in the county's history and the unit is now being organized. Dr. John Philip, formerly of Merced County, will head the new department.

Rodent Control Course

Inservice training courses in rodent control are being conducted by the Department's Bureau of Vector Control on a continuing basis.

The course, designed for health department personnel and others working in this field, has already been given in San Diego, Santa Cruz and the San Francisco Bay area.

Three Tuberculosis Surveys

Tuberculosis casefinding surveys have been conducted by the State Department of Public Health in San Benito, Mendocino and Lake counties in recent months.

A total of 8,254 films were taken in the three programs.

Deaths by Selected Cause: California**March, 1949**(Exclusive of stillbirths. By place of occurrence.
Provisional figures)

CAUSE OF DEATH	Number of deaths	
	March	January-March
Total, All Causes	8,843	26,054

Selected Communicable Diseases

Tuberculosis of Respiratory System (001-008)	258	694
Tuberculosis, other forms (010-019)	22	53
Syphilis, all forms (020-029)	46	162
Typhoid Fever (040)	—	1
Diphtheria (055)	5	17
Whooping Cough (056)	2	8
Poliomyelitis (080-081)	6	31
Other Infective and Parasitic Diseases (001-138, exclusive of those above)	34	94
Influenza (480-483)	18	47
Pneumonia (490-493)	189	780

Selected Diseases Usually Chronic in Nature

Malignant Neoplasms of the Digestive Organs and Peritoneum (150-159)	435	1,328
Malignant Neoplasms of the Respiratory System (160-165)	127	346
Malignant Neoplasms of the Breast (170)	118	320
Malignant Neoplasms of the Female Genital Organs (171-176)	136	358
Malignant Neoplasms, Other and Unspecified Sites (140-199, exclusive of those above)	269	710
Neoplasms of the Lymphatic and Haematopoietic Tissues (200-205)	106	274
Benign Neoplasms and Neoplasms of Unspecified Nature (210-239)	20	55
Diabetes Mellitus (260)	83	253
Vascular Lesions Affecting the Central Nervous System (330-334)	843	2,589
Nephritis and Nephrosis (590-594)	111	336
Cirrhosis of the Liver (581)	137	440
Ulcer of the Stomach and Duodenum (540-541)	56	159
Hernia and Intestinal Obstruction (560-561, 570)	46	131
Diseases of the Circulatory System:		
Rheumatic fever (400-402)	8	20
Chronic rheumatic heart disease (410-416)	146	431
Arteriosclerotic and degenerative heart disease (420-422)	2,647	7,783
Other diseases of the circulatory system (430-468)	964	2,882

Important Causes Limited to One Sex or Age Group

Complications of Pregnancy, Childbirth and the Puerperium (640-689)	8	30
Diseases of Early Infancy:		
Birth injuries, postnatal asphyxia and atelectasis (760-762)	173	488
Diarrhea of the newborn (764)	4	13
Other infections of the newborn (763, 765-769)	16	86
Other diseases peculiar to early infancy (770-776)	134	373

Accidental and Violent Deaths

Accidental Deaths, Total	406	1,335
Motor vehicle accidents (810-835)	174	598
Other accidents (800-802, 840-965)	232	737
Suicide (970-979)	182	412
Homicide and Injury Purposely Inflicted by Other Persons (980-999)	30	93

Other Selected Causes	Number of deaths	
	March	January-March
Congenital Malformations (750-759)	114	328
All Other Specified Causes	393	1,308
Senility and Ill-Defined Causes (780-795)	7	25
Cause Not Assigned, Query Outstanding	544	1,252

Note: For code numbers following cause of death refer to the Sixth Decennial Revision of International Lists of Diseases and Causes of Death. Figures include deaths occurring in 1949.
Source: State of California, Department of Public Health, Vital Statistics Records.

History of Registration in California

In California, as in many other states, a reasonable degree of completeness in recording of vital statistics has been achieved only in recent years. Quite early in the history of the State, however, a need for records of vital events was felt by a few people, who instituted various attempts to obtain registration of births, deaths, and marriages. Registration of marriages began in Sonoma County in 1846, under the old "Bear Flag Government," four years before the State Government was organized. In 1858, a registration act was passed, providing for filing of records of births, deaths, marriages, and divorces, with a state registrar who was to be appointed by the governor. This act was repealed in 1860.

With the formation of the State Board of Health in 1870, the need for collection of vital data received new emphasis. This was expressed by Doctor T. M. Logan in an address to fellow members of the newly appointed board at their first meeting, held in Sacramento in April of 1870:

We are to encourage . . . the registration of births and deaths and marriages, whereby mortality and other reports touching the vital condition of the people may be obtained monthly, and if possible, weekly. In such reports we will find the first indications of the vital conditions of the various parts of the State—the drift of all epidemic influences and the dangers that may be impending. We will learn when and in what circumstances life has its largest expansion and the smallest burden; where childhood, in the largest proportions, survives the perils of its years, and prepares the greatest number of men and women for responsible and self-sustaining life; and, on the other hand, we will discover the places and circumstances where, of those who are born, the fewest pass through the dangers of infancy to become workers in society.

REGISTRATION ACT DRAFTED

Since the legislation formulating the State Board of Health made no provision for registration of vital records, one of the first acts of the new board was to prepare a draft of a registration act for submission to the next legislature. Provision for recording of vital events was made in the Political Code of 1872, which placed the responsibility for keeping state-wide records

with the Secretary of the State Board of Health. Persons attending births or deaths were required to keep registers of the events they attended and submit a copy of these registers to the county recorder each quarter. In turn, the county recorder kept a Register of Deaths and a Register of Births filed quarterly with the Secretary of the State Board of Health a certified abstract of each register. Original certificates of marriage were filed with the county recorder and a certified abstract of his Register of Marriages was also sent quarterly to the Secretary of the State Board of Health. No provision was made then or has been made since for preservation of divorce records except in the regular court records.

The Registration Act of 1872 proved inadequate, since insufficient provision was made for its enforcement. Repeated attempts of the State Board of Health to obtain amendments which would correct some of the deficiencies of the act were unsuccessful. Vital statistics were obtained chiefly from monthly or weekly reports which were made voluntarily by private physicians and surgeons and other interested persons.

STATE BUREAU CREATED

In 1905, a State Bureau of Vital Statistics was created, with the Secretary of the State Board of Health serving ex officio as State Registrar of Vital Statistics. Provision was made for filing of original certificates of births, deaths, and marriages with the State Registrar. The State was divided into primary registration districts for the purpose of registration of deaths. When the act had been placed in effect, the registration of deaths and marriages was considered fairly complete, but registration of births continued to be a problem. California was admitted to the Registration Area of the United States in 1906.

The State was divided into primary registration districts for births and marriages in 1915, as it has been for deaths in 1905, and an improvement in the divisions was made in 1917. Local registrars in each registration district were charged with the duties of making two copies of records of births and deaths, one for themselves and one for the county recorder, and transmitting the original to the State Registrar.

Since 1917, a constant attempt has been made to improve the completeness of registration and the quality of data obtained on certificates. The goal is to obtain a complete, clear, and adequate record of every vital event occurring in the State.—*Gladys Rasmussen*, Senior Public Health Analyst, Bureau of Records and Statistics.

A. P. H. A. Starts Survey of All U. S. Public Health Engineers

The American Public Health Association, in cooperation with the National Security Resources Board, is preparing a roster of sanitary and public health engineer citizens of the United States. This roster, to a great extent, will supplement and bring up to date the roster prepared by the War Manpower Commission. Its uses will be manifold, but the immediate interest of the National Security Resources Board in such a roster is to provide a means by which trained sanitary and public health engineers can be assured of proper utilization of their professional training should another national emergency arise. The Engineering Section Project of the American Public Health Association is directly responsible for the collection of data and preparation of the roster.

On July 1 the distribution of questionnaires to be used in gathering basic information necessary for the preparation of the roster was begun. Previous to printing the questionnaire in its final form a proposed draft was distributed to a hundred engineers as a trial to check its applicability and the clarity of presentation. The final questionnaire has been prepared on the basis of the original one, plus comments and suggestions received during this trial period.

N. R. C. DEFINITION USED

The definition of a sanitary engineer prepared by the National Research Council in 1943 is being used as a basic description of individuals who should receive and complete the questionnaire. Judgment as to whether or not the individual meets the requirements as set forth by the National Research Council in its definition will rest with each individual. The Engineering Section Project is not in a position to judge individual cases.

The files of the War Manpower Commission are being used as a basis for a mailing list in sending out the questionnaires. The Surgeon General of the U. S. Army has also supplied a list of all engineers who served with the Sanitary Corps of the Army. These two lists are being amplified by information obtained from membership lists of several of the national engineering societies, plus information submitted by state sanitary engineers through the cooperation of the Conference of State Sanitary Engineers, by larger consulting engineers, and several other individuals consulted individually. It is recognized, though, that no single source of information is available for the preparation of the master mailing list. Many engineers are not registered with state boards of registration. Likewise, many are not members of national organiza-

tions. As a result, it is likely that many qualified engineers will not receive the questionnaire. It is important for each sanitary or public health engineer to act for himself in the matter. Any engineer who does not receive a copy of the questionnaire within the next two or three months should notify the Engineering Section Project, American Public Health Association, 1790 Broadway, New York, so that his name can be entered in the master file and a questionnaire sent to him. In this way his name can be included in the roster.

Since the basic data collected in the preparation of the roster will remain the property of the American Public Health Association, it is planned to make certain basic information available to engineering societies and organizations cooperating in the preparation of the roster.

San Mateo Parents Vote Approval of "Human Growth"*

Overwhelming approval for the use of the film "Human Growth" in school instruction has been voiced by the parents of San Mateo County.

The film, which was purchased last September by the Seventeenth District, P. T. A. and the county mental hygiene society, has been shown several times a week throughout the county to P. T. A. groups, private and civic organizations, parents and children, boards of education and citizens' committees. To each of almost 4,000 persons viewing the film, questionnaires concerning suitability for use in schools were distributed. Results of this survey leave little doubt about the feelings of the groups:

Number of persons expressing approval..... 3,887
Number of persons expressing disapproval..... 81

The majority agreed that this film, which has received nation-wide publicity and is available from the State Department of Public Health, could be shown from fifth grade up with continued instruction through high school. They agreed that the teacher or commentator should be "well trained, well balanced, thoroughly familiar with the subject, at ease in answering questions, and with special training in preparing such a course."

Parents also asked for an adult education program to help teach their children at home. It was their feeling that human relations courses should begin from first grade, providing each child with an understanding appropriate to his age of reproductive phenomena as one of life's basic processes.

Those who disapproved of the film said it was too advanced for children before the eighth grade. Grade

children, it was said, could not understand the material; it should be left for parents to teach at home. Many commented that boys and girls should be separated for this film and courses in family relationships. Others asked if the information given would lead to "experimentation and promiscuity."

California Morbidity Reports

SELECTED DISEASES—CIVILIAN CASES

Total Cases for May and Total Cases for January Through May, 1949, 1948, 1947 and Five-Year Median (1944-1948)

Selected diseases	Current month				Cumulative			
	May				January through May			
	1949	1948	1947	5-yr. median 1944-1948	1949	1948	1947	5-yr. median 1944-1948
Chickenpox (variella).....	5,725	5,050	4,481	5,283	33,072	28,709	26,991	26,991
Coccidioid granuloma.....	9	5	7		38	24	33	
Conjunctivitis—acute infectious of the newborn (ophthalmia neonatorum).....	2		2		5	7	10	
Diphtheria.....	29	30	52	61	200	244	430	533
Dysentery, bacillary.....	21	30	7		117	131	52	
Encephalitis, infectious.....	1	5	5	5	16	14	23	23
Epilepsy.....	141	158	109		682	819	724	
Food poisoning.....	38	51	28		220	62	188	
German measles (rubella).....	2,744	634	253		15,539	2,349	1,285	
Influenza, epidemic.....	33	113	82	82	609	14,458	653	5,111
Jaundice, infectious.....	115	7	10		320	137	58	
Malaria.....		7	9	11	10	21	50	49
Measles (rubeola).....	6,358	15,409	909	14,987	34,878	46,680	4,441	48,629
Meningitis, meningococcal.....	19	20	32	40	148	153	181	318
Mumps (parotitis).....	5,241	4,827	2,174	4,827	25,597	17,977	10,202	17,977
Pneumonia, infectious.....	91	130	127	137	885	971	1,001	1,327
Poliomyelitis, acute.....								
anterior.....	49	71	55	34	398	124	262	151
Rabies, animal.....	13	27	23	49	97	154	134	204
Rheumatic fever.....	45	60	64		290	380	385	
Scarlet fever.....	276	337	449	825	2,000	1,991	2,947	4,468
Streptococcal sore throat.....	40	54	37		339	291	300	
Smallpox (variola).....							2	8
Tuberculosis:								
Pulmonary.....	699	725	693	725	3,499	3,442	3,831	3,442
Other forms.....	39	44	60	54	190	228	261	228
Typhoid fever.....	7	14	8	12	38	58	39	56
Typhus fever.....			1		1	6	11	
Undulant fever (brucellosis).....	14	15	31	31	46	51	118	117
Whooping cough (pertussis).....	345	340	1,578	562	1,318	2,070	4,888	2,338
Veneral diseases:								
Chancroid.....	35	26	39		242	193	272	
Gonococcus infection.....	1,492	1,857	2,369	2,369	9,594	10,999	13,616	10,999
Granuloma inguinale.....	1	1	10		12	20	42	
Lymphogranuloma venereum (lymphopathia venereum, lymphogranuloma inguinale).....	14	21	15		95	127	98	
Syphilis.....	1,109	1,147	1,833	2,204	6,418	7,329	10,389	10,389

W. H. O. Membership

Sixty-two nations are now members of the World Health Organization. Uruguay is the latest to join. Applications for membership have also been received from the Republic of Korea and from San Marino.

* (From a report prepared by Mrs. Charles Ruddegaugh, P.H.N., member of the Seventeenth District P. T. A. Steering Committee Mental Hygiene Board and Child Guidance Clinic of San Mateo County.)

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